WE CLAIM AS OUR INVENTION:

1. A method for operating a medical imaging examination apparatus comprising the steps of:

sequentially acquiring measured signals from an examination subject;

processing said measured signals in an image computer to obtain image data signals from said measured signals, representing at least one image for use in making a diagnosis relative to said examination subject;

setting a predetermined, diagnosis-specific parameter representing a criterion for image quality of said at least one image;

automatically electronically analyzing said at least one image to determine whether said at least one image has an image quality which satisfies said parameter;

if said at least one image has an image quality which satisfies said parameter, ending acquisition of said measured signals; and

if said at least one image has an image quality which does not satisfy said parameter, acquiring further measured signals until an image having an image quality which satisfies said parameter is obtained.

2. A method as claimed in claim 1 comprising setting a continuation limit and aborting said continued acquisition of said measured signals if said continuation limit is exceeded without an image being obtained having an image quality which satisfies said parameter.

3. A method as claimed in claim 2 comprising setting a time span as said continuation limit.

4. A method as claimed in claim 2 comprising setting a predetermined number of unsuccessful attempts to obtain an image having an image quality which satisfies said parameter, as said continuation limit.

5. A method as claimed in claim 1 comprising employing a parameter representing contrast in said at least one image as said parameter representing a criterion for image quality.

6. A method as claimed in claim 5 wherein said at least one image has two image regions having respective grey scale values, and comprising employing a parameter defining a relationship of the respective grey scale values of said two image regions as said parameter representing contrast in said at least one image.

7. A method as claimed in claim 1 wherein said image computer generates an image data signal containing said image data, and comprising setting a predetermined further parameter related to said image data signal, and automatically electronically analyzing said at least one image to determine whether both said parameter representing a criterion for image quality and said further parameter are satisfied, and wherein the step of ending said measured signal acquisition comprises ending said measured signal acquisition only if both of said parameter representing a criterion for image quality and said further parameter are satisfied, and wherein the step of continuing acquisition of said measured signals comprises continuing acquisition of said measured signals until an image is obtained having an image quality which satisfies said parameter representing a criterion for image quality and an image data signal which satisfies said further parameter.

8. A method as claimed in claim 7 wherein said image data signal has a waveform having a signal amplitude, signal edges each having a slope, and a waveform width, and comprising selecting said further parameter as a parameter defining at least one of said amplitude, said slope, and a ratio of said amplitude to said waveform width.

9. A method as claimed in claim 1 wherein said image computer generates a plurality of images from said measured signals, and comprising the additional steps of:

checking image stability by automatically electronically analyzing at least two of said plurality of images to identify a change of said parameter between said at least two images;

setting a change limit and automatically electronically determining whether said change exceeds said change limit, and wherein the step of ending said measured signal acquisition comprises ending said measured signal acquisition if said parameter is satisfied and said change limit is not exceeded, and wherein the step of continuing to acquire measured signals comprises continuing to acquire said measured signals if said change limit is exceeded until at least two further images are obtained wherein said change limit is not exceeded.

10. A method as claimed in claim 1 wherein the step of acquiring measured signals from said examination subject comprises acquiring nuclear magnetic resonance signals from said examination subject as said measured signals.

11. A medical imaging examination apparatus comprising:

a signed acquisition arrangement for sequentially acquiring measured signals from an examination subject;

an image computer supplied with said measured signals for processing said measured signals to obtain image data signals from said measured signals, representing at least one image for use in making a diagnosis relative to said examination subject;

a processor having an input unit for setting a predetermined, diagnosis-specific parameter representing a criterion for image quality of said at least one image;

said processor automatically analyzing said at least one image to determine whether said at least one image has an image quality which satisfies said parameter, and, if said at least one image has an image quality which satisfies said parameter, said processor generating a signal to said signal acquisition arrangement for ending acquisition of said measured signals and, if said at least one image has an image quality which does not satisfy said parameter, said processor causing said signal acquisition arrangement to acquire further measured signals until an image having an image quality which satisfies said parameter is obtained.

12. A medical imaging examination apparatus as claimed in claim 11 wherein said input unit allows setting of a continuation limit and wherein said processor aborts said continued acquisition of said measured signals if said continuation limit is exceeded without an image being obtained having an image quality which satisfies said parameter.

13. A medical imaging examination apparatus as claimed in claim 12 wherein said input unit allows setting of a time span as said continuation limit.

14. A medical imaging examination apparatus as claimed in claim 12 wherein said input unit allows setting of a predetermined number of unsuccessful attempts to obtain an image having an image quality which satisfies said parameter, as said continuation limit.

15. A medical imaging examination apparatus as claimed in claim 11 wherein said processor employs a parameter representing contrast in said at least one image as said parameter representing a criterion for image quality.

16. A medical imaging examination apparatus as claimed in claim 11 wherein said at least one image has two image regions having respective grey scale values, and wherein said processor employs a parameter defining a relationship of the respective grey scale values of said two image regions as said parameter representing contrast in said at least one image.

17. A medical imaging examination apparatus as claimed in claim 11 wherein said image computer generates an image data signal containing said image data, and wherein said input unit allows setting of a predetermined further parameter related to said image data signal, and wherein said processor automatically analyzes said at least one image to determine whether both said parameter representing a criterion for image quality and said further parameter are satisfied, and wherein said processor generates said signal ending said measured signal acquisition only if both of said parameter representing a criterion for image quality and said further parameter are satisfied, and wherein said processor causes said signal acquisition arrangement to continue acquisition of said measured signals until an image is obtained having an image quality

which satisfies said parameter representing a criterion for image quality and an image data signal which satisfies said further parameter.

18. A medical imaging examination apparatus as claimed in claim 17 wherein said image data signal has a waveform having a signal amplitude, signal edges each having a slope, and a waveform width, and wherein said processor employs a parameter as said further parameter that defines at least one of said amplitude, said slope, and a ratio of said amplitude to said waveform width.

19. A medical imaging examination apparatus as claimed in claim 11 wherein said image computer generates a plurality of images from said measured signals, and wherein said processor checks image stability by automatically analyzing at least two of said plurality of images to identify a change of said parameter between said at least two images and wherein said input unit allows setting of a change limit and said processor automatically determines whether said change exceeds said change limit, and wherein said processor generates said signal ending said measured signal acquisition if said parameter is satisfied and said change limit is not exceeded, and wherein said processor causes said signal acquisition arrangement to continue to acquire measured signals if said change limit is exceeded until at least two further images are obtained wherein said change limit is not exceeded.

20. A medical imaging examination apparatus as claimed in claim 11 wherein said signal acquisition arrangement acquires nuclear magnetic resonance signals from said examination subject as said measured signals.